

## **ABSTRACT OF THE DISCLOSURE**

Disclosed is an apparatus for encoding  $k$  consecutive inputs indicating a TFCI (Transport Format Combination Indicator) of each of successively transmitted frames into a sequence of  $m$  symbols in an NB-TDD (Narrowband-Time Division Duplex) mobile communication system. An encoder encodes the  $k$  input bits into a sequence of at least  $2^n$  symbols where  $2^n > m$ , using an extended Reed-Muller code from a Kasami sequence. A puncturer performs puncturing on the sequence of  $2^n$  symbols from the encoder so as to output a sequence of  $m$  symbols.

卷之三